

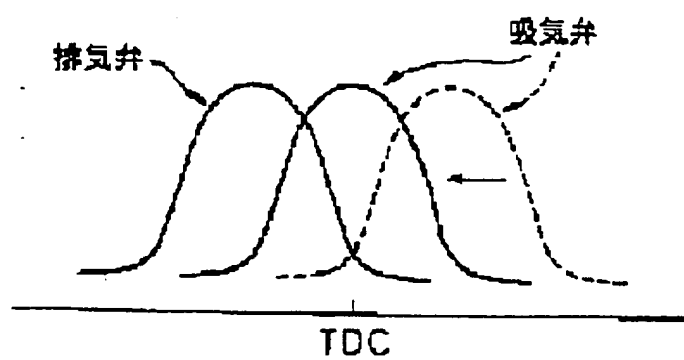
===== WPI =====

- TI - Variable valve control appts of IC engine with turbo charger - has control unit, which controls phase change unit in order to delay opening time of exhaust valve during acceleration time
- AB - J09125994 The appts has a phase change unit, which changes phase of an intake suction valve or an exhaust valve. An operation state detector, detects the operation state of an engine. When the engine is accelerated an overlap is generated in an TDC characteristics curve. When an overlap occurs, amount of fuel inhaled by the engine is increased and thereby amount of combination is increased so that overlap is made small.
- A control unit controls the phase change unit, which delays opening time of the exhaust valve during acceleration time. When the exhaust valve is opened, the compressed and pressurised exhaust is supplied to a turbine.
 - ADVANTAGE - Improves acceleration characteristics quickly.
 - (Dwg. 2/4)
- PN - JP9125994 A 19970513 DW199729 F02D13/02 005pp
- PR - JP19950290110 19951108
- PA - (NIJI) NIPPON JIDOSHA BUHIN SOGO
- (TOYT) TOYOTA JIDOSHA KK
- MC - X22-A03G
- DC - Q52 X22
- IC - F02D13/02 ; F02D23/00 ; F02D41/04
- AN - 1997-317697 [29]

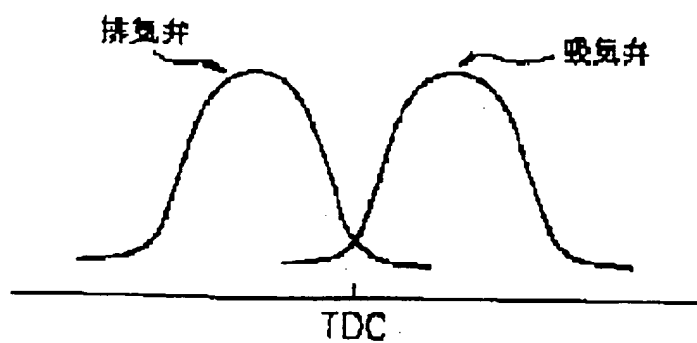
===== PAJ =====

- TI - VARIABLE VALVE TIMING CONTROL DEVICE FOR EXHAUST GAS TURBINE SUPERCHARGED INTERNAL COMBUSTION ENGINE
- AB - PROBLEM TO BE SOLVED: To increase an exhaust gas volume in quick response to acceleration, and rapidly raise boost pressure for improving an acceleration characteristic by increasing an intake fresh air volume on the operation of an engine for keeping a valve overlap at zero or the reduction thereof, and quickening acceleration response, upon the detection of the acceleration.
- SOLUTION: A total gas volume in cylinders is increased as an operation mode for keeping a large overlap between an exhaust valve and an intake valve during the low-and intermediate-load operation modes of an internal combustion engine. When the engine is accelerated in this condition, a phase change means is operated for immediately keeping the valve overlap at zero or the reduction thereof to increase the volume of the intake fresh air and raising acceleration response. As a result, the valve overlap is reduced immediately after the acceleration, and the volume of the fresh air in cylinders can be suddenly increased. Also, the increase of a gas volume can cause not only an instantaneous increase in output, but also an instantaneous increase in exhaust gas volume sent to a turbocharger, thereby eliminating a turbo lag.
- PN - JP9125994 A 19970513
- PD - 1997-05-13
- ABD - 19970930
- ABV - 199709
- AP - JP19950290110 19951108
- PA - NIPPON SOKEN INC; TOYOTA MOTOR CORP
- IN - SEKIGUCHI KIYONORI; MURATE NOBUYUKI; IMATAKE NOBUO; UMASAKI MASATOSHI; OBATA HARUMASA
- I - F02D13/02 ; F02D23/00 ; F02D41/04

(a)



(b)



(c)

